

Power Transistors

INCHANGE

2N5298

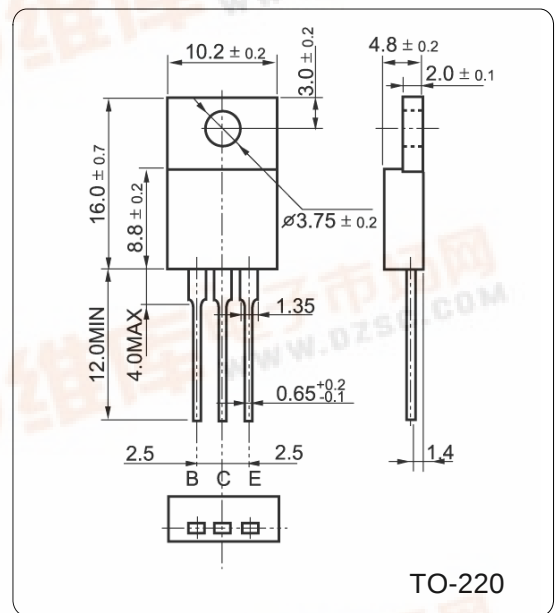
Silicon NPN Transistors

◆ Features

- With TO-220 package
- Designed for use in general purpose amplifier and switching applications

◆ Absolute Maximum Ratings $T_c=25^{\circ}\text{C}$

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to base voltage	80	V
V_{CEO}	Collector to emitter voltage	60	V
V_{EBO}	Emitter to base voltage	5.0	V
I_{CP}	Peak collector current	5.0	A
I_C	Collector current	4.0	A
P_C	Collector power dissipation	36	W
T_j	Junction temperature	-65~150	$^{\circ}\text{C}$
T_{stg}	Storage temperature	-65~150	$^{\circ}\text{C}$

◆ Electrical Characteristics $T_c=25^{\circ}\text{C}$

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
I_{CBO}	Collector-base cut-off current	$V_{CB} = 80V; I_E = 0$		0.2	mA
I_{EBO}	Emitter-base cut-off current	$V_{EB} = 5V; I_C = 0$		1.0	mA
I_{CEO}	Collector-emitter cut-off current	$V_{CE} = 60V, I_B = 0$		0.3	mA
V_{CBO}	Collector-base breakdown voltage				
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C = 30mA, I_B = 0$	60		V
V_{EBO}	Emitter-base breakdown voltage				
$V_{CEsat-1}$	Collector-emitter saturation voltages	$I_C = 3A; I_B = 375mA$		1.2	V
$V_{CEsat-2}$	Collector-emitter saturation voltages				
$V_{CEsat-3}$	Collector-emitter saturation voltages				
$V_{CEsat-4}$	Collector-emitter saturation voltages				
h_{FE-1}	Forward current transfer ratio	$I_C = 1A, V_{CE} = 4V$	25		
h_{FE-2}	Forward current transfer ratio	$I_C = 3A, V_{CE} = 4V$	10	50	
h_{FE-3}	Forward current transfer ratio				
h_{FE-4}	Forward current transfer ratio				
$V_{BE(sat)1}$	Base-emitter saturation voltages	$I_C = 3A, V_{CE} = 4V$		1.8	V
$V_{BE(sat)2}$	Base-emitter saturation voltages				
$V_{BE(sat)3}$	Base-emitter saturation voltages				
f_T	Transition frequency at $f = 1\text{MHz}$	$I_C = 0.5A, V_{CE} = 10V$	3.0		
t_f	Fall time				
t_{off}	Turn-off storage time				